U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Nashville International Airport Gas Line - Removal Polrep
Final Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: **POLREP #2**
Final Polrep
Nashville International Airport Gas Line

Nashville, TN
Latitude: 36.1089561 Longitude: -86.6871723

To: James Webster, USEPA R4 ERRPB
Jeff Bagwell, TDEC

From: Steve Spurlin, FOSC
Date: 6/18/2019
Reporting Period: April 9, 2019 to June 18, 2019

1. Introduction

1.1 Background

Site Number:	V4FW	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	OPA	**Response Type:**	Emergency
Response Lead:	PRP	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	4/9/2019	**Start Date:**	4/9/2019
Demob Date:	4/19/2019	**Completion Date:**	5/15/2019
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:	1242283	**State Notification:**	4/9/2019
FPN#:	E19413	**Reimbursable Account #:**	HR04RAXHRV4FW

1.1.1 Incident Category

This incident is an emergency response to a discharge of gasoline. On April 9, the National Response Center (NRC) notified the U.S. Environmental Protection Agency Region 4 (EPA) that, while conducting drilling operations, the Tennessee Department of Transportation struck and ruptured a 12-inch gasoline transmission pipeline at the Nashville International Airport discharging an unknown quantity of product (NRC report #1242283). The breach occurred at 36.137048 degrees north and -86.660321 degrees west.

1.1.2 Site Description

The Site consists of a ruptured 12-inch gasoline transmission line, and the fuel impacted soils and waters surrounding the pipeline rupture area. The discharge occurred on the Nashville Airport property within a secure area.

1.1.2.1 Location

The location is the Nashville International Airport, Nashville, Davidson County, Tennessee.

1.1.2.2 Description of Threat

The EPA and Superfund Technical Assessment and Response Team (START) mobilized to the Site and integrated into Unified Command. On-Scene Coordinator (OSC) Spurlin reported to the Incident Command Post, and OSC Garrard assisted with field operations. The initial report from Colonial Pipeline (Colonial), the pipeline owner, indicated that approximately 750 barrels (31,500 gallons) of gasoline was discharged into a field located at the end of an airport runway. Once Colonial was able to evaluate the specific damage to the pipeline, the final estimated of the volume discharged was 340 barrels (14,280 gallons). The gasoline flowed eastward overland and into existing drainage features leading to McCrory Creek, a tributary to the Cumberland River.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Upon arrival on-scene, EPA observed pooled fuel within the drainage features leading to McCrory Creek. A multi-acre area of surface soils sloping towards McCrory Creek was impacted by fuel. The area is Karst, which is a landscape under lane with eroded limestone which creates fissures and sinkholes allowing fuel to migrate unpredictably.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On April 9, the National Response Center (NRC) notified the U.S. Environmental Protection Agency Region 4 (EPA) that, while conducting drilling operations, the Tennessee Department of Transportation struck and ruptured a 12-inch gasoline transmission pipeline at the Nashville International Airport discharging a large quantity of gasoline. The Nashville Airport Authority utilizes a 24-hour environmental contractor to service the airport. The airport rapidly deployed their contractor to initiate assessment and containment measures. The incident occurred in a large metropolitan area which allowed Colonial to mobilize resources rapidly. The Colonial and Nashville Airport contractors combined resources to establish and implement containment and mitigation activities.

2.1.2 Response Actions to Date

Colonial shut the line down quickly after receiving notification of a potential line strike at 1105 hours local time on April 9. Colonial, its contractors, and the Nashville Airport Authority's on-site contractor first focused on excavating the immediate area around the pipeline rupture and establishing containment measures. Boom and absorbent pads were deployed at six downstream locations in McCrory creek, approximately 200 yards apart. Vacuum trucks were utilized to collect pooled fuel, and portable tanks for waste liquid storage were staged on site. Personnel was assigned to monitor the creek and areas between the creek and the ruptured line.

As more heavy equipment arrived onsite, the drainage ditch located along the access road, to the north of the rupture, was excavated to below original grade by several inches, where possible. All excavations were affected by the extremely variable size of the fill material in the hillside. Underflow dams were installed at the end of the drainage ditch excavation and just prior to where drainage from the hillside was routed to enter McCrory Creek, southeast of the rupture. Several exploratory trenches and holes were excavated to target the release pathway. No product was initially observed in the trenches. No sheen or smell was discovered along the creek.

START used a MultiRae Pro to continuously monitor for VOCs and an UltraRae to spot check benzene concentrations to assist Colonial in their worker safety air monitoring during certain tasks. The START and Colonial air monitoring detections in the work zones were consistent for benzene. Benzene detections were seen as high as nine ppm, but most detections ranged from three to five ppm. All detections in work zones were very short duration. When benzene was detected, the workers would exit the work area. If the benzene levels remained elevated, the level of respiratory protection was increased, and engineering controls were implemented.

The EPA tasked START to assess air quality due to the gasoline volatilizing from the ruptured line. The area surrounding the release included a long-term parking lot approximately 100 meters to the west of the ruptured line, undeveloped land to the north, McCrory Creek to the east, and an airport runway to the south. EPA tasked START, on April 10, to set up air monitoring locations to assess the site and potential impacts to surrounding areas, focusing on the nearest receptor area. START was also tasked to provide intermittent air monitoring support in the work zones to confirm the success of personal protective measures.

On April 10, START set up an AreaRae Pro air monitoring station between the site and the public parking lot to the west. The AreaRae Pro was configured with sensors for detection of oxygen, carbon monoxide, hydrogen sulfide, lower explosive limit (LEL), volatile organic compounds (VOCs), and gamma radiation. START monitored the station from the site staging area via a computer using ProRae Guardian and VIPER telemetry. Due to VOC readings that ranged from 3 to 13 parts per million (ppm), three additional air monitoring stations were established around the perimeter of the spill area. All four stations sampled continuously until the evening of April 11.

On April 11, OSC Garrard discovered a location where the product had emerged from the creek bank and discharged to McCrory Creek. To address the discharge, Colonial placed boom and absorbent pads at the discharge area and utilized a vacuum truck to collect impacted water. An interceptor trench was installed upgradient of the seep area in an effort to stop the fuel from reaching the water. A vacuum truck was utilized to collect fuel from the interceptor trench.

On April 12, the perimeter air monitoring was discontinued, as the pipeline was no longer releasing product and the damaged had been repaired. Colonial discovered the second seep of product into the creek, approximately eight feet north of the first observed seep and expanded the trench to intercept the pathway from the second seep better. Product was observed collecting in the excavated drainage ditch along the access road; the vacuum truck was used to remove the product from the ditch. Colonial began excavating the surface soil along affected area of the hillside, an area approximately 150 feet wide, 300 feet long, and 0.5 feet deep to remove fuel-contaminated soil.

On April 13, Colonial identified an additional seep located approximately 20 feet upstream of the first observed seep. Colonial placed soft boom around the seep and utilized a vacuum truck to remove the product. Colonial continued excavating affected surface soil from the hillside and using vacuum trucks for removing product collected in the trench. As the excavation proceeded, Colonial began to backfill and stabilize the excavated surface soil area to minimize sediment erosion.

On April 14, a portion of the boom in the creek failed due to higher water levels and a faster flow rate from an overnight rain event. Most of the downstream boom was still in place, and no sheen was observed downstream off the airport property. Colonial continued excavating and backfilling the affected surface soil area on the hillside and utilizing vacuum trucks to remove product collected in the trench.

On April 15, the Unified Command conducted a meeting to discuss future actions at the Site. In addition to EPA, Colonial, TDOT, and the Nashville Airport, the Tennessee Department of Environment & Conservation (TDEC) Water and Remediation programs were in attendance. Colonial presented the current status of the incident, committed to continuing to conduct necessary actions to address the discharge, and opened a dialogue with TDEC regarding future activities related to water quality and remediation. OSC Spurlin determined that Colonial had adequate resources in place to address the discharge and demobilized from the Site. OSC Spurlin utilized a local START to monitor the ongoing work for the next week periodically.

From April 15 to 19, Colonial continued to remove the product from the trench and continued excavation and backfill on the affected hill near the rupture site.

As of April 19, an estimated 3,616 cubic yards of soil was stockpiled for removal, and 39,831 gallons of liquid was collected from the recovery trench; 837 gallons of the recovered liquid was estimated to be fuel. It is anticipated that additional soils and waste liquids will be generated as Colonial continues to recover fuel from existing collection points. Colonial has installed multiple additional collection trenches and points to improve the efficiency of the collection of the fuel and continues to maintain and monitor the creek boom. In

coordination with TDEC, Colonial has implemented a surface water quality sampling program.

Colonial has agreed to continue the applicable removal efforts and response operations until there is no longer a discharge or threat of discharge to the surface waters.

START demobilized on April 19.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

All information will be provided to the US Coast Guard Fund Center to assist with making a determination regarding liability. Colonial and the TDOT were issued Notice of Federal Interest letters.

2.1.4 Progress Metrics

The waste metrics are estimated volumes as of April 19. Colonial has continued to collect fuel/water mix from the collection trenches. The fuel-contaminated soils remain stockpiled and secured on site until disposal is undertaken.

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
gasoline-contaminated soil	soil	3616 cubic yards			TBD
gasoline/water	liquid	40,000 gallons		recycling	Allied Energy, Birmingham, AL

2.2 Planning Section

2.2.1 Anticipated Activities - continue with excavation of contaminated soil and conduct air monitoring

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

Federal Project Number (FPN) E19413 was established to support EPA's response to the oil discharge. The FPN ceiling is $50,000.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
TAT/START	$30,000.00	$17,675.00	$12,325.00	41.08%
Intramural Costs				
USEPA - Direct	$43,365.00	$0.00	$43,365.00	100.00%
USEPA - InDirect	$6,635.00	$0.00	$6,635.00	100.00%
Total Site Costs	$80,000.00	$17,675.00	$62,325.00	77.91%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

No information available at this time.

4. Personnel On Site

No information available at this time.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.